Health and Miscellaneous Abstracts

Effect of Urbanization on Child safety

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Background: The process whereby a society changes from a rural to an urban way of life is called urbanization. The world's population living in urban areas has grown up from 14% to over 50%. It is associated with many changes including greater access to transportation and clear implications for determining the disease and injury pattern. This study was designed aiming to compare injuries related mortality and morbidity in urban vs rural settings among children in Iran.
Methods: Data was gathered from a household survey. A t-test was used to analyze the relationship between outcomes.
Findings: Injury in all ages accounts for 17 % of all deaths in Iran. 20% of deaths in children is due to injuries. Traffic related injuries account for 42%. Airway obstruction and drowning are considered to be the second and third causes of death from injury among children respectively. Children in urban settings sustain injuries due to traffic accident, airway blockage and fall from height more than rural children. Drowning is more prevalent in rural areas than in urban ($p<0.05$). About 63.5% of morbidity related to injuries occurs in private homes or in residential areas e.g. yards and compounds. In these injuries no significant statistically difference was found between rural vs. urban setting ($p\leq0.05$).
Conclusion: Beside area level measures as an index for considering urbanization, other elements including quality of roads, distances from markets, types of markets available, transportation options accessibility of health services and so on should be considered as well. Safety for children is an important element to be provided prior to planning cities by urban developers. Expansion of the International Safe Community program is a potential solution.
Keywords: urbanization, child safety, safe community

Attention Bias Modification Therapy (ABMT) as a modern technique for obesity management in children

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Background: Pediatric obesity is an epidemic that challenges the health of children on all levels of health care system. During the past decade, pediatric psychologists have actively pursued an understanding of the psychosocial correlates of pediatric obesity and developed effective interventions based on this knowledge. Attention Bias Modification Therapy (ABMT) is an innovative intervention to increase children's motivation for compliance of diet programs. It remains unknown if ABMT and related components following initial skills training into pediatric obesity interventions facilitate child behavior change following treatment cessation. It was concerning issue in this study.
Methods: ABMT uses the dot-probe task as a therapeutic tool by computer program. In this randomized clinical trial, 72 overweight/obese children were assigned to either self-directed or prescribed intervention for 8 cessions of ABMT or placebo. Anthropometric measurements from child at baseline, post-treatment, and 3-month follow-up were evaluated for change.
Findings: Participants who were randomized to receive ABMT reported better success in weight losing ($p<0.043$), adherence of self-management program for weight control ($p<0.003$), and shown better self-image and self-esteem ($p<0.01$) than those who received placebo.
Conclusion: The results of these studies show that there is potential in the application of ABMT to control weight, and a positive effect of ABMT on clinical outcomes suggests that this technique is worthy of future study as an intervention for obese children.
Keywords: Attention Bias Modification Therapy, Obesity, Management, Children

Quality of life of mothers of hard of hearing children

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Background: Hearing impairment in children can affect all the family members and mostly is associated with parental distress. This study was conducted to investigate the quality of life of mothers of hard of hearing children.
Methods: It was a cross-sectional study. The population comprised all the mothers of hard of hearing children in Karaj special primary schools for deaf. The study participants were selected through purposeful sampling, 30 mothers were volunteers for the study. Samples were been evaluated with the quality of life scale (WHO-QOL BREEF). Data was collected and processed through SPSS to calculate the mean score, standard deviation.
Findings: The results showed that the mean score of the quality of life mothers of hard of hearing children were significantly lower and under normal scores.
Conclusion: Quality of life of mothers who have hard of hearing children is under normal range and appropriate interventional programs are necessary for them and they need special psychological support.
Keywords: Quality of Life, Mothers, Hard of Hearing Children

Evaluation of the experience of hearing and vision health control in children before entering school age

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Background: Joint Committee on Infant Hearing (JCIH) guidelines axis based on the assumption that all infants before the age of one month of age should be encouraged to hearing evaluation by an electrophysiological test. On the other hand, one of the goals of the WHO's 2020 program for vision is the increase the public awareness about eye disease and increased levels of care in childhood diseases

such as amblyopia and refractive errors of eye. But whether these services are performed for the children in our country? And, if applicable, to what extent the target population covered by it?
Methods: Coincident with the national evaluation of school beginners in the city of Shiraz in 2012, a public survey was performed on the children. During the study, parents should be declare whether the senses health of hearing and vision of their child ever been evaluated? However, in case that a problem is confirmed, whether the parents were aware of the existence of this problem in children?
Findings: Statistics clearly show that over 92% of children at least once were assessed for health of vision. But the results were reversed for the hearing exams and nearly 92% of children has been denied of any hearing evaluations and nearly 80% of the children had hearing problems that their diseases were still remain unknown at these ages.
Conclusion: The statistical results indicate acceptable performance for evaluation of vision but these figures are very disappointing in the area of children hearing in the community. Perhaps it is due to the lack of awareness, management, or lack of access to equipment and personnel, as well as sometimes high cost of examinations and related equipment.
Keywords: Hearing, Vision, Screening, Preschool, Children

Improvement of potential hearing in children with bilateral sensorineural hearing loss

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Background: Sensorineural hearing loss is the most sensory deficit in children. Auditory function in these affected children is poor and their potential hearing may be influenced by some factors such as otitis media and cerumen. In this paper, our interest was to seek the effects of overlooked otitis media and cerumen on potential hearing of these children.
Methods: This was a quasi experimental, pretest post-test study that was conducted in 48 bilateral sensorineural hearing impaired children, between 2010-2013. Their age ranged 5-20 years, suffering from the mentioned ear diseases in the better ear, without serious ear symptoms. Modes of interventions were: cerumen removal, medical treatment of otitis media, and both of modes. Two indices including auditory threshold shift by means of (SRT) changes and hearing ability improvement through self-reporting were used before and after medical intervention. SRT examined through pure tone audiometer, and scored by dB (HL). The data was analyzed using the nonparametric Fisher's Exact Test and Kruskal-Wallise.
Findings: Potential hearing improved in about 80% of the cases. Auditory threshold decreased in 50% of them and in all three types of intervention, but with different frequency and different degree. It showed statistically significant relation between frequency, and degree of SRT changes as well as mode of intervention. Hearing ability improved in most of the cases after intervention, but the relation between these improvement and mode of intervention was not statistically significant.
Conclusion: This study showed that potential hearing improved in most of the cases after medical intervention. Although the effect of otitis media treatment on threshold shift was more prominent than cerumen removal, but cerumen had a considerable effect on hearing ability or potential hearing of hearing impaired children.
Keywords: Cerumen, Sensorineural Hearing Loss, Speech Reception Threshold, Otitis Media, Auditory Threshold

The prevalence of overweight and obesity and their relation with stunting among primary school children of Khorramabad city

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Background: Obesity is a medical condition that occurs after excessive accumulation of fat in the body. Stunting is one of the first signs of malnutrition in children, which could have irreversible effects on child development process in the future.This study aimed to investigate the prevalence of overweight, obesity, and stunting, and their relationship with each other and other environmental factors among primary school children in Khorramabad.
Methods: This descriptive-analytic study was conducted on 420 primary school students in Khorramabad in 2012. The samples were selected through cluster sampling. Weight was measured in kilograms and height in centimeters, and the percentiles in terms of age and sex were determined and compared with reference values.
Findings: Of 420 students participating in this study, 54 patients (12.8%) had short statures, 41 (9.7%) were overweight, and 23 (5.4%) were obese. Inverse associations were found between short stature and obesity as well as overweight.
Conclusion: The obtained indicators of child anthropometric indices were indistinguishable from those in other parts of the world, indicating a favorable condition of the anthropometric indicators. However, the findings of this study indicate that achieving the Millennium Development Goals requires further enhancements in living standards and improvements in diet quality.
Keywords: Stunting, Overweight, Obesity, Anthropometric Indices, School Children

The prevalence of consanguineous marriages and its demographic characteristics among couples referred to marriage counseling centers in Hamadan

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Background: Given that the high rate of consanguineous marriage and transferring of defective genes to the next generation in our society, genetic diseases have high prevalence. Given that the congenital malformations have been the most common causes of children death in Hamadan Province in the recent years and considering that the risk of genetic disorders is high in consanguinity marriage, so evaluation of this type of marriage and related

demographic factors are important.
Methods: This cross-sectional descriptive and analytical study was conducted from September 2011 to September 2012. All of the participitant couples in marriage counseling centers in Hamadan province were the target group for our study. From this group, all the couples with consanguineous marriage were enrolled. Then, the subjects completed a questionnaire containing information about consanguineous marriage and background data. Data were extracted analyzed by fifteen Edition of SSPE software.
Findings: Out of 26,573 couples, 2304 cases had consanguineous marriage (8.7 %) which the most rate was seen in Malayer (15.8 %0) and the lowest in Kabudrahang(4.9%). The most common type of consanguinity was first cousins (78.2%) and relationship was female cousin – male cousin. Under diploma education in both men and women had the highest prevalence and only 21.8 % of the couples were referred to genetic counseling in the premarriage period.
Conclusion: In attention to high prevalence of consanguinity in Hamadan province and its relation with both congenital malformations and hereditary diseases, it seems that education and updating of community awareness to the this type of marriage and as well as encouraging to genetic counsultation before consanguineous marriage are important and necessary.
Keywords: Consanguineous Marriage, Genetic Disorders, Marriage Counceling Centers, Prevalence

Impact on performance of hearing screening program through prevalence and diagnostic age evaluation in primery school students in Iran

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Background: Lack of a national neonatal screening protocol in Iran, displaces routine hearing screening at school entry. Early diagnosis of hearing loss (HL) lead to early intervention and improvement of developmental skills in children. We aimed to determine diagnostic age and causes of HL at school entry to evaluate this hearing screening performance and its efficacy as a guideline for deciding early diagnosis.
Methods: This cross-sectional study included 3295 children aged 6-7 years from primary schools of mashhad, Iran from 2010 to 2011. Inclusion criteria were students at school entry who were affected by HL. Exclusion criteria were healthy children at school entry. For data obtaining, we evaluated subjects' medical archives, interviewed with their parents and hygience teacher and took general physical examination, demographic information, birth history and hearing loss history. Audiologic assessment consisted of otoscopy, tympanometry and audiometry. The affection of students with history of HL diagnosis confirmed by auditory tests again.
Findings: Of total of 3295 students (2282 males and 1011 females) 44(1.33%) of students had hearing impairment with statistically significantly higher prevalence in male students (P<001). In male group, prevalence of hearing loss in urbon schools was significantly higher than rural schools, (P<0.02). Making diagnosis by physician was significantly more than by parents (p<0.041) with no diagnosis role of teachers. The common age of HL diagnostic was at school entry, at 6-7 years old (59%) (p<001). Use of hearing aids was significant (p<0.001) and (p<0.003) in male and female students respectively.
Conclusion: Higher prevalence of HL in urbon schools shows enough perception in their family for diagnosis. The parents, teachers and population should have much greater awareness of HL diagnosis. Screening protocol at school entry in Iran suggested late diagnosis and poor outcome. Therefore, national screening are necessary in newborns, at school entry and every time we suspected of hearing inparements.
Keywords: Hearing Loss, Student, Primary School, Prevalence

An X-autosome translocation with dysmorphic features: a case report

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Background: Balanced X- autosome translocations are associated with a variety of phenotypes depending on X breakpoint position and replication behavior. The present study is an attempt to define the clinical features and diagnosis of a rare event.
Case presentation: We report a female infant who exhibited specific features such as IUGR (Intra uterine growth retardation), low-set ear, microcephaly, hypertelorism and micrognatia. She was born at 38 weeks' gestation, with 45.8cm in length, 2100g in weight, and with head circumference of 31.5cm. Cytogenetic analysis confirmed a karyotype of 45X, t(X:21)(p11.4;q11.2).
Conclusion: To our knowledge, this de novo X-autosome translocation has not been described yet and thus, the localization of its breakpoints may lead to a novel origin of translocation. This comparison of clinical and cytogenetical findings may also provide an opportunity to detect some phenotype/karyotype correlations.
Keywords: Chromosomal abnormality, dysmorphic feature, low-set ear, X-autosome translocation

Unusual presentation of Goltz syndrome with minimal ectodermal involvement in a 3-year-old Iranian girl

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Background: Goltz syndrome (MIM 305600) is a rare genetic disorder characterized by distinctive skin abnormalities and a range of defects affecting the eyes, teeth, limbs, skeletal, urinary, gastrointestinal, cardiovascular and central nervous system. It is inherited in an X-linked dominant mode with lethality in males. One of the main features in this syndrome is the skin changes which are usually present at birth. Ectodermal features include symmetric linear reticulated thin skin, linear hyperpigmentation, ulcerations, telangiectasias, inflammation, hernialike outpouchings of fatty tissue, and papillomas.
Case presentation: Here we report a 3-year-old girl, with asymmetric involvement, greater severity of findings on the right side. She had sparse hair, hyperkeratosis on 2/3 of the right side of the forehead, lacrimal duct stenosis,

hypoplastic alae nasi, hyperkeratosis of the nose, simple ear, narrow auditory canal and hypoplastic tragus,, partial cleft of upper lip and pitting on lower lip and slight defect on tongue, hypoplastic nipple, ectrodactyly of hand and foot (on the right side). She has bilateral dysplastic nails on feet, scoliosis, syndactyly of third and 4th toes on the left side. We only had a chest X-ray from our patient which did not show striated bones. Initially Ectrodactyly-Ectodermal dysplasia was suspected and genetic testing for TP73L did not reveal any pathogenic mutation. We then sequenced PORCN gene and identified c.611T>C (p.Leu204Pro) mutation.
Conclusion: we present a patient with Goltz syndrome with unusual findings. Our patient did not have any of the common ectodermal, skeletal or ocular findings seen in such patients.
Keywords: Goltz Syndrome, Genetic Disorder

Genetic testing reports: implications for pediatricians

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Background: Genetic testing is opening own venue in different branches of medicine, even in our country. There are many applications of testing including newborn screening, diagnostic testing, carrier testing, preimplantation genetic diagnosis, prenatal diagnosis, predictive and presymptomatic testing, pharmacogenomics and forensic and paternity testing. For children, there are some limitations about these tests. Several methods can be used once a person with a genetic disorder decides to proceed with genetic testing; chromosomal analysis and/or DNA testing and/or biochemical genetic tests may be applied to determine the cause of his/her disease. Genetic tests are performed on a sample of blood, hair, skin, amniotic fluid or other biological specimens. The laboratory reports the test results to the physician or genetic counselor. Discussing with a geneticist or genetic counselor could be helpful about the pros and cons of the test. In the other hand, knowing the basics of genetic reports is essential to physicians for communicating with the lab and geneticist and managing the disease.
Keywords: Genetic testing, molecular tests, chromosomal analysis

Studing of growth monitoring chart in 1 to 5 years old children in Tehran Booali Hospital at year 2013

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Background: The scope of mortality in children under 5 in the developing countries is an important sign of health in the region and monitoring the children growth. Including regular monitoring of weight is a precise and important index for discovery and identification of threatening factors for children health. Monitoring children growth in every society can present a comprehensive plan of growth and health process of the children in that society and help the physicians and health employees in micro and macro policy - making for health of the society.
Methods: The research in descriptive analytical-sectional form through single random sampling has been done with 403 children, 206 girls and 197 boys. Measuring the weight during one year and also filling in a questionnaire for getting more information from every child are among tools for collecting information. The study variables included: parents education, their job, their age, and family relationship between them, number of children in a family, their nutrition habits and the scope of family income.
Conclusion: After analyzing the data, it appeared that significant relation exist between the child weight and the level of education of the father and mother and nutrition habits of the family, it also appeared that weight differences in our children in comparison with the standard weigth curve are more in the middle of the age spectrum and less in the two ends of the age spectrum. This can be a sign of hack of correct and suitable nutrition after ending the breastfeeding period as the main nutrition. It should be mentioned that the growth curve, due to its sight speciality , has the capacity to train mothers for more active participation in their child growth monitoring. This curve is very valuable tool for discovery of high risk children as well as malnutrition before appearing the clinical signs.
Keywords: Growth, Growth Curve, Child

The evaluation of serum level of zinc in children with anorexia refer to shohadaye kargar Hospital

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Background: Loss of appetite is one of the most common nutritional problems in children, especially during the complementary feeding, if it continues it can lead to deviations in patterns of child development and lead to a high incidence of hemodynamic, hematologic, endocrine and bone density disorders. One of the causes of loss of appetite is lack of micronutrients such as zinc which through different ways can lead to growth retardation. According to nutritional differences in different regions and the effects of anorexia in children's health, determining the serum level of zinc in anorexic children looks essential.
Methods: This was a cross–sectional study. Samples of this study randomly selected from children admitted to the pediatric clinic of Shohada kargar hospital in 2013, and anorexic children (with the informed consent of parents) were enrolled. The questionnaire was structured in advance including demographic data of children that completed and the results added to Inventory. Finally, the data were analyzed.
Findings: This study was conducted on 81 anorexic children including 50 Girls (61.7%) and 31 boys (38.3%). The mean age was 3.6 ± 2.27 years. Children were divided into four age groups; Under 1 year , 1-3 years , 3-5 years and 5-10 years. In this study, an average of serum zinc was 79.24 ± 23.31 µg/dl. Besides, 66 children (81.48%) had normal serum level of zinc (60 µg/dl and higher) and 15 children (18.52%) had abnormal serum zinc level (less than 60 µg/dl).
Conclusion: In this study, the mean serum zinc concentration in the samples was higher than the minimum acceptable level of zinc. Given the low percentage of children with anorexia had abnormal serum zinc level might be justified because of high percentage of families with low socioeconomic level in our survey. Naturally a lot

of social problems involved, so the psychological problems of children with anorexia has become more prominent.
Keywords: Anorexia, Zinc, Children

Reasons of children`s readmission in Motahari Hospital, Urmia, Iran

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Background: In recent years, the rate of avoidable readmission as an indicator of the quality of hospital care is introduced. Readmission has some effects on the cost and quality of hospital care and it imposes additional burden for patients and their families. Also, reduction the costs is a priority for hospitals administrators and patients. The aim of this study was to identify the reasons of readmission for conducting the appropriate interventions.
Methods: In this descriptive study, 250 documents of children who were readmitted in 2013 were assessed. A checklist used for data collection. We used descriptive statistics to summarize the readmission rates and the causes.
Findings: Out of the 250 children who readmitted, 41.6% were female and 58.4% were male. The mean age was 2.8 years and the mean length of hospital stay was 4.37 days. The average cost of treatment for every patient was 1,361,814 Rails and the average number of readmission was 3.2 times. The most common reasons of readmission included 30.4% unrelated to the first hospitalization, recurrence of the disease (21.2%), follow up (16.8%), discharge without the physician's order (16.4%), treatment failure (4.3%), complications of surgery (4.1%), infection (3.9%), wrong diagnosis (1.8%) and other causes (1.1%).
Conclusion: The result of this study shows that readmission increase patients' length of stay as well as additional costs for patients and hospitals, and many causes of readmission are preventable. So, the rate of patient readmission can be minimized by implementing clinical governance guidelines and training of health care workers and patients.
Keywords: Children, Readmission, Reasons

E-professionalism in pediatrics

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Background: Now a days, the internet has created the opportunity to communicate and share information easily, and quickly among millions of people around the world. It also facilitates the same situation for medical students and physicians. They can participate in social networking and other internet opportunities. These professions should consider patient privacy and confidentiality, honesty, appropriate boundaries of the patient and physician relationship, separating personal and professional content online, public and private personae, attention to advertising by corporation and pharmaceutical companies, and trust in the field of medical professionalism. Professionalism breaks in virtual environment can have consequences not only for individuals but also for public trust especially in the field of pediatrics according to the vulnerability of children. Modeling and teaching this new aspect of professionalism or e-professionalism in digital era is very important.
Conclusion: Careful attention is needed to define the implications of virtual communication and use of social media on the traditional role of pediatricians as e-professionalism.
Keywords: E-Professionalism, Internet, Pediatrics, Professionalism, Social Media